

REMARKS

The claims are amended in order to more clearly define the invention, support for which is found in the figures and related parts of the specification. Support for recitation of the term growing in place of the term fabricating is found at page 8, line 20; page 9, line 29 and page 12, lines 12-13 of the specification as originally filed. Support for growing the carbon containing expanded base by simultaneously applying a carbon source gas and an etchant gas to the carbon containing expanded base and growing the carbon containing extension by simultaneously applying the carbon source gas and the etchant gas to the carbon containing extension is found at page 12, lines 9-13 and at page 8, lines 17-22 of the specification as originally filed. Support for the carbon containing expanded base including a graphitic carbon film is found at page 7, lines 27-28 and support for this film being precipitated is found at page 8 lines 19, 20 and 23 of the specification as originally filed.

With regard to new claims 35-37, support for large-scale commercial production is found at page 6 lines 2 and 5. Support for multiple dots, or pattern arrays of dots is found at page 6, line 30 and in FIG. 4A. Support of an array of dots on a substrate is found at page 9 lines 12-13. Support for large-scale synthesis, which enables commercial mass production is found at page 9, line 21.

With regard to new claims 38-41, support for sharp tips is found at page 12, line 19 and in FIGS. 4A-4C and 5A-5B. Support for a nanometer tip diameter of the CNCs; the CNC height and base diameter grown to a micron size is found at page 8, lines 15-17. Support for the tip diameter of the cone remaining constant during the growth process and being determined only by the size of the catalyst droplet is found at page 8, lines 24-25.

With regard to new claims 42-44, support for controlling the length of the cone, cone angle, diameter of the NCCCT apex is found at page 6, lines 8-9. Support for the location of the tip, the length of the cone and the cylinder, the cone angle, and the diameter of the cylindrical part all being controlled is found at page 9, lines 19-20. Support for the tip parameters such as the length of the cone and the cylinder, the cone angle, and the diameter of the cylindrical part being well controlled is found from page 12, line 26 to page 13, line 1.

With regard to new claims 45-47, support for a mechanically strong connection between the base and the substrate is found at page 6, lines 6-7. Support for mechanical stability of the cone is found at page 5, line 19.

The specification is amended to more clearly describe figure 5A and to provide literal support for one of the claimed limitations, support for which is found in the figures and related parts of the specification. Specifically, with regard to the description of figure 5A, support for the carbon containing expanded base 510 including the precipitated graphitic carbon film 520 is found at page 7, lines 27-28 and page 8 lines 19, 20 and 23 of the specification as originally filed and in figure 5A itself as originally filed. Support for the recitation of growing said carbon containing expanded base includes simultaneously applying a carbon source gas and an etchant gas to said carbon containing expanded base and growing said carbon containing extension includes simultaneously applying the carbon source gas and the etchant gas to said carbon containing extension is found at page 12, lines 9-13 and at page 8, lines 17-22 of the specification as originally filed.

Applicant submits herewith as part of a request for approval of Examiner of changes to the drawings one copy of one (1) sheet of marked-up drawings that add detail numbers 510 and 520 to figure 5A. Applicant requests that the Examiner approve the substitute drawings. Upon the Examiner's approval and allowance of this application, Applicant will submit formal drawings that incorporate the proposed change(s).

In view of the above, all the claims are considered patentable and allowance of all the claims is respectfully requested. In the event that there are any remaining issues, the attending to of which would expedite the allowance of this application, the Examiner is invited to contact the undersigned for prompt action at the direct line telephone number appearing below.

The Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 50-0456.

Respectfully submitted,


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